



# Touchstone® TM608G Telephony Modem with Integrated Battery Backup Technical Specifications

## Specifications

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### Physical

|   |   |
|---|---|
| Operating Temperature °F (°C)           | 32 to 122 (0 to 50)   |
| Operating Relative Humidity (Min.-Max.) | 5-85% (Non condensing)  |
| Storage Temperature °F (°C)             | -40 to 158 (-40 to 70)  |
| Color                                   | Dark gray   |
| Dimensions (H x W x D) in. (cm)         | 10.3 x 2.0 x 7.4, (26.2 x 5.1 x 18.8) - excluding Telephony connector |
| Weight lbs (g)                          | No battery included: 1.20 (554)                                       |
| Battery: 4 cell, 4.4Ahr Option          |   |
| Backup Capacity                         | Lithium-ion 4.4 Ah  |
| Battery Dimensions in. (cm)             | 1.2 x 1.85 x 5.7 (3.0 x 4.7 x 14.5)                                   |
| Weight lbs (g)                          | 0.50 (228)  |
| Battery: 8 cell, 8.8Ahr Option          |   |
| Backup Capacity                         | Lithium-ion 8.8 Ah  |
| Battery Dimensions in. (cm)             | 2.0 x 2.0 x 6.9 (5.1 x 5.1 x 17.6)                                    |
| Weight lbs (g)                          | 1.0 (439)   |
| Battery Storage Temperature °F (°C)     | -4 to 140 (-20 to 60) (Note 1)  |
| Telemetry                               | AC Fail, Battery Low, Battery Missing, Replace Battery                |
| Diagnostic LEDs                         | Power, DS, US, Online, Link, Telephone 1-8, Battery                   |

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### Interfaces

|   |   |
|---|---|
| RF Interface                                | External 'F' type connector                                       |
| Data Interfaces                             | 10/100 Base-T Ethernet RJ-45                                      |
| Telephony Interface Adapters (not included) | RJ11, RJ14/RJ11, TII IDC (ROHS), Channel IDC (Non-ROHS), and RJ21 |
| Power (nominal)                             | 115/240 VAC, 50/60 Hz   |

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### Telephony

|   |   |
|---|---|
| Supervisory Voltage                                   | 48 VDC nominal  |
| Maximum Loop Length to CPE                            | 1000 ft (457M) of 26 AWG (0.4 mm) wire                |
| Ringing Load Capacity                                 | 15 REN total; 5 per line                              |
| Provisionable High Loop Current Mode                  | Yes (40mA constant current source, NA templates ONLY) |
| Telcordia™ GR 1089 (Lightning and Power Surge) Tested | Yes   |
| Programmable Interface for Worldwide Applications     | Yes (supports multiple country templates)             |

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## Specifications Continued...

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### RF Downstream

|                                   |            |
|-----------------------------------|------------|
| Frequency Range (MHz)             | 88 - 1002  |
| Modulation (QAM)                  | 64 or 256  |
| Data Rate (Mbps) (Max.)           | up to 42   |
| RF Input Sensitivity Level (dBmV) | -15 to +15 |
| Bandwidth (MHz)                   | 6          |

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### RF Upstream

|                           |  |
|---------------------------|--|
| Frequency Range (MHz)     | 5-42   |
| Modulation                | QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM & 128 QAM (S-CDMA only)  |
| Data Rate (Mbps) (Max.)   | up to 30.72  |
| RF Output Level (dBmV)    | A-TDMA: +8 to 54 dBmV (32 QAM, 64 QAM),<br>+8 to 55dBmV (8 QAM, 16 QAM),<br>+8 to 58 dBmV (QPSK)<br>S-CDMA: +8 to +53 dBmV (all modulations) |
| Automatic Level Adjust    | Yes  |
| Gain Control Range (dB)   | 50   |
| Frequency Stability (kHz) | ±5   |
| Output Impedance (Ohms)   | 75   |

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### Standards

Codec: G.711, 64 kbps,  $\mu$  and A-law encoded speech  
Enhanced codec firmware support (G.726, G.728, G.729E)  
T.38 Fax Relay  
DOCSIS 2.0 based  
PacketCable 1.0 & 1.5 based  
RFC3261 SIP: Session Initiation Protocol  
RIPv2 and MD5 Authentication  
UL® 60950, FCC Part 15 Class B, CE

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### Notes:

1. Storage above 77°F (25°C) will significantly reduce life of the battery and is not recommended.
2. Battery back-up times are typical and can be influenced by the age of the battery, the charging state, storage conditions and operating temperature as well as factors such as data activity and length of active telephone calls. The capabilities, system requirements and/or compatibility with third-party products described herein are subject to change without notice.

# ARRIS Technical Specification

## Ordering Information

| Part # | Description |
|--------|-------------|
|--------|-------------|

|        |  |
|--------|--|
| 722827 | Touchstone TM608G/NA-0 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA<br>Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15 Power Plug<br>Includes wall mounting brackets<br>Quick Install Guide, CD ROM with User Guide, Ethernet cable, Battery, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included                                       |
| 722828 | Touchstone TM608G/NA-8 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 4-cell 4.4AHr Li-Ion Battery Pack<br>Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15 Power Plug<br>Includes wall mounting brackets<br>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included         |
| 722829 | Touchstone TM608G/NA-16 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 8-cell 8.8AHr, Li-Ion Battery Pack<br>Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with NEMA 1-15 Power Plug<br>Includes wall mounting brackets<br>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included       |
| 722830 | Touchstone TM608G/CE-0 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA<br>Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with CEE 7/16 "Euro" Power Plug<br>Includes wall mounting brackets<br>Quick Install Guide, CD ROM with User Guide, Ethernet cable, Battery, 19 inch rack mounting brackets, and Telephone Interface Adaptor are not included                                 |
| 722831 | Touchstone TM608G/CE-8 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 4-cell 4.4AHr, Li-Ion Battery Pack<br>Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with CEE 7/16 "Euro" Power Plug<br>Includes wall mounting brackets<br>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets and Telephone Interface Adaptor are not included   |
| 722834 | Touchstone TM608G/CE-16 DOCSIS 2.0 / PacketCable 1.0/1.5 Compliant E-MTA with 8-cell 8.8 AHR, Li-Ion Battery Pack<br>Integrated 100-240 VAC, 50/60 HZ Power supply w/ 6 foot power cord with CEE 7/16 "Euro" Power Plug<br>Includes wall mounting brackets<br>Quick Install Guide, CD ROM with User Guide, Ethernet cable, 19 inch rack mounting brackets and Telephone Interface Adaptor are not included |

### Telephone Interface Adapter Description

|        |   |
|--------|---|
| 728934 | TM608 RJ11 Even / RJ14 Odd Telephone Interface Adaptor                            |
| 728935 | TM608 RJ11 Telephone Interface Adaptor  |
| 728936 | TM608 RJ21 Telephone Interface Adaptor  |
| 728937 | TM608 TII Insulation Displacement Connector (IDC) Telephone Interface Adaptor     |
| 728942 | TM608 Channel Insulation Displacement Connector (IDC) Telephone Interface Adaptor |

### Battery Packs

|        |  |
|--------|--|
| 718005 | 4-Cell, 4.4 Ah, Li-Ion Battery Pack for TM502G/H, TM504G/H, WTM552G/H, TM602G/H, TM604G, and TM608G      |
| 722842 | 8-Cell, 8.8 Ah, Li-Ion Battery Pack TM608G (Cannot be used in TM502G/H, TM504, WTM552, TM602, and TM604) |

### Mounting Brackets

|        |  |
|--------|--|
| 728964 | 19 inch rack mounting brackets for the TM608 |
|--------|--|

#### Notes:

1. TM608 Base is shipped without a Telephone Interface Adaptor. ARRIS recommends all orders include:  
Base Unit Part # + Telephone Interface Adaptor Part #

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